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US Dept. of Commerce Pat. & Trademark Office

Attorney's Docket No.

22147

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 USC 371

US. Application No. (if known)

10/069905

INTERNATIONAL APP. NO.
PCT/IB00/01135

INTERNATIONAL FILING DATE
21 February 2000

PRIORITY DATE CLAIMED
25 August 1999

TITLE OF INVENTION

LOCKERS

APPLICANT(S) FOR DO/EO/US

Markus HOHL

Applicant herewith submits to the United States Designated/Elected Office (DO/EU/US) the following .

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 USC 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 USC 371.
3. ☐ This is an express request to begin national examination procedures (35 USC 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 USC 317(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed **IN ENGLISH** (35 USC 371(c)(2)).
 - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau.
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Patent Office.
6. ☐ A translation of the International application into English.
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 USC 371(c)(3)).
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau.
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 USC 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 USC 371(c)(4).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 USC 371(c)(5)).

Items 11. to 16. below concern documents or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An Assignment for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
 ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items of information.
Drawing (4 sheets)

Rec'd PTO 1/22 FEB 2002

US Application no (if known) 10/069905	International Application no. PCT/IB00/01135	Attorney's Docket No. 22147
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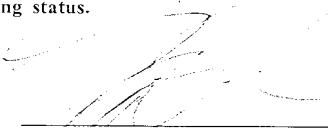
17. The following fees are submitted: Basic National Fee (37 CFR 1.492(a)(1)-(5)): Search report has been prepared by the EPO or JP \$890.00 Int'l prel. exam. fee paid to USPTO (37 CFR 1.482) \$710.00 No int'l prel. exam. fee paid to USPTO (37 CFR 1.482) but int'l search fee paid to USPTO (37 CFR 1.445(a)(2)) \$740.00 Neither int'l prel. exam fee (37 CFR 1.482) nor int'l search fee (37 CFR 1.455(a)(2)) paid to USPTO \$1040.00 Intl. prel. exam. fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Art. 33(2-4) \$100.00 ENTER APPROPRIATE BASIC FEE AMOUNT				CALCULATIONS PTO-USE ONLY	
Surcharge of \$130.00 for furnishing oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).					
CLAIMS	NO. FILED	NO. EXTRA	RATE		
Total claims	10	0	\$18	\$0	
Ind. claims	0	0	\$84	\$0	
MULTIPLE DEP. CLAIM(S) (if applicable) (see prel. amt.)			280		
TOTAL OF ABOVE CALCULATIONS				\$1,040	
Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity Statement must also be filed (37 CFR 1.2, 1.27, 1.28)				\$0	
SUBTOTAL				\$1,040	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).					
TOTAL NATIONAL FEE				\$1,040	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The Assignment may be accompanied by an appropriate PTO-1595 cover sheet (37 CFR 3.28, 3.39)					
TOTAL FEES ENCLOSED					
				Amt to be refunded	
				Amt to be charged	

a. ☐ A check in the amount of \$ to cover the above fees is enclosed
b. ☐ Please charge my deposit account 18-2025 \$ to cover the above fees. A copy of this sheet is enclosed.
c. ☒ Please charge the amount due to the credit card identified in the attached PTO-2038.
d. ☒ The commissioner is authorized to charge any additional fees which may be required or credit any overpayment to deposit account 18-2025. A copy of this sheet is enclosed
e. A PTO-2038 in the amount of \$ to cover recordal of the Assignment is enclosed

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

Send all correspondence to:

The Firm of Karl F. Ross P.C.
5676 Riverdale Ave. Box 900
Riverdale (Bronx), NY 10471


Herbert Dubno, Reg. No. 19,752

22147

IN THE U.S. PATENT AND TRADEMARK OFFICE

Inventor Markus HOHL
Patent App. Not known (US Nat'l phase of PCT/IB00/01135)
Filed Concurrently herewith
For LOCKERS
Art Unit Not known
Hon. Commissioner of Patents
Washington, DC 20231

PRELIMINARY AMENDMENT

Prior to examination of the above-identified application,
please amend as follows:

In the Claims:

Claim 3, line 1, delete "either previous claim", insert
instead -- claim 1 --,

Claim 6, line 1, delete "either of claims 4 or 5", insert
instead -- claim 4 --,

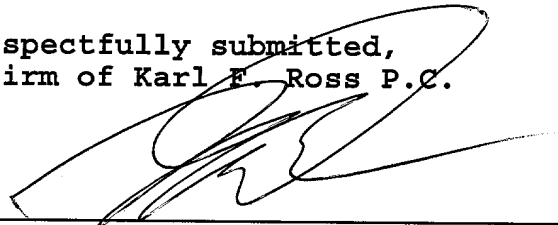
Claim 7, line 1, delete "any of claim", insert instead
-- claim 4 --,

Claim 9, line 1, delete "any of claims 4 to 8", insert
instead -- claim 4 --,

Claim 10, line 1, delete "any of claims 4 to 9", insert
instead -- claim 4 --.

This preliminary amendment is submitted just to reduce claim charges.

Respectfully submitted,
The Firm of Karl F. Ross P.C.



By: Herbert Dubno, Reg. No. 19,752
Attorney for Applicant

21 February 2002
5676 Riverdale Avenue Box 900
Bronx, NY 10471-0900
Cust. No.: 535
Tel: (718) 884-6600
Fax: (718) 601-1099

rg

Enclosures: set of marked-up claims
 set of clean claims

CLAIMS

- 5 1. A group of lockers or the like, including at least first and second neighbouring lockers, at least the first locker including a body forming a compartment having an open side, and a door of generally uniform cross section and of uniform curvature, this curvature lying upon a circle, the door being supported such that the door may be rotated from a closed position in
10 which the open side of the compartment is substantially covered by the door, to an open position in which the open side of the compartment is substantially uncovered, there being a cavity between first and second lockers, the door's curve remains lying upon the same circle during rotation, and the cavity being capable of accommodating the door whilst it is in the
15 closed position.
2. A group of lockers according to claim 1, wherein the cavity, when considered from the front of the lockers, is covered by a covering member.
- 20 3. A group of lockers according to ^{claim 1} ~~either previous claim~~, wherein the covering member includes a recess to accept the one edge of the door of the second locker.
- 25 4. A locker or the like including a body forming a non-cylindrical compartment having an open side, and a door of generally uniform cross section and of uniform curvature, this curvature lying upon a circle, the door being supported such that the door may be rotated from a closed position in which the open side of the compartment is substantially covered by the

door, to an open position in which the open side of the compartment is substantially uncovered, the door's curve remains lying upon the same circle during rotation, the door being substantially outside the body of the locker when the locker is in the open position.

5

5. A locker or the like according to claim 4, wherein the door is supported upon pivot means.

10

6. A locker or the like according to ^{claim 4} (either of claims 4 or 5), wherein the pivot means is supplied by one or more generally segmental shapes pivoted about the apex of the segmental shape.

15

7. A locker or the like according to ^{claim 4} (any of claim) wherein there is included a locking means to secure the door in the closed position.

8. A locker or the like according to claim 7 wherein the locking means act upon the segmental shape.

20

9. A locker or the like according to ^{claim 4} (any of claims 4 to 8) wherein an extruded handle is provided on the door.

10. A group of lockers according to ^{claim 4} (any of claims 4 to 9).

25

~~11. A locker or the like substantially as herein described and illustrated.~~

~~12. A group of lockers substantially as herein described and illustrated.~~

13. Any novel and inventive feature or combination of features specifically disclosed herein within the meaning of Article 4H of the International Convention (Paris Convention).

CLAIMS

- 5 1. A group of lockers or the like, including at least first and second
neighbouring lockers, at least the first locker including a body forming a
compartment having an open side, and a door of generally uniform cross
section and of uniform curvature, this curvature lying upon a circle, the door
being supported such that the door may be rotated from a closed position in
10 which the open side of the compartment is substantially covered by the
door, to an open position in which the open side of the compartment is
substantially uncovered, there being a cavity between first and second
lockers, the door's curve remains lying upon the same circle during rotation,
and the cavity being capable of accommodating the door whilst it is in the
15 closed position.
2. A group of lockers according to claim 1, wherein the cavity, when
considered from the front of the lockers, is covered by a covering member.
- 20 3. A group of lockers according to claim 1, wherein the
covering member includes a recess to accept the one edge of the door of the
second locker.
4. A locker or the like including a body forming a non-cylindrical
25 compartment having an open side, and a door of generally uniform cross
section and of uniform curvature, this curvature lying upon a circle, the door
being supported such that the door may be rotated from a closed position in
which the open side of the compartment is substantially covered by the

door, to an open position in which the open side of the compartment is substantially uncovered, the door's curve remains lying upon the same circle during rotation, the door being substantially outside the body of the locker when the locker is in the open position.

5

5. A locker or the like according to claim 4, wherein the door is supported upon pivot means.

6. A locker or the like according to claim 4, wherein the
10 pivot means is supplied by one or more generally segmental shapes pivoted about the apex of the segmental shape.

7. A locker or the like according to claim 4, wherein there is included a locking means to secure the door in the closed position.

15

8. A locker or the like according to claim 7 wherein the locking means act upon the segmental shape.

9. A locker or the like according to claim 4, wherein an
20 extruded handle is provided on the door.

10. A group of lockers according to claim 4.

25

Lockers

The present invention relates to lockers, that is, storage cubicles,
5 particularly, though not exclusively, arranged in rows.

A known type of locker comprises a cuboid body of five fixed
panels which form two side walls, a back wall, a top and a bottom, and a
hinged door which, when closed, forms the sixth face of the cuboid. The
10 body and door of the locker are conventionally made out of panels of sheet
metal. Such lockers are commonly stacked side-by-side in rows, with the
doors all similarly aligned and facing the same direction. Lockers are
found in many public or semi-public environments for people to
temporarily or indefinitely keep their belongings in. As their name implies,
15 lockers also commonly feature a locking means, typically a lock upon the
door which engages with a keep formed in the body of the locker.

The door of such a locker is hinged using one or more hinge plates
attached to the wall of the locker body and the door, the door being pivoted
20 about its vertical edge.

The hinge of the locker is vulnerable to many types of damage, such
as people carelessly over-opening the door, so that the part of the door
presses the edge of the side wall of the locker, whereupon the some part of
the hinge, or the door or body of the locker itself, may buckle and fail.
25 Another type of strain put upon the locker hinges is caused by people who
deliberately wish to cause damage to the locker by hanging upon the door,
so that again the hinge or the door may become bucked or broken. The

locker is often targeted by thieves, who will apply force upon the key hole, or between the gap between the edge of the door and the locker walls.

5 The provision of such lockers in confined spaces, especially in narrow corridors, may also give rise to difficulties, as there must be enough space for the doors of the lockers to open whilst still allowing other people past the row of lockers.

10 US 5135293 and WO 8801143 both show a locker featuring a pivoted curved door, the pivoting point being inside the concavity of the curve. Whilst being opened, the door does not swing significantly towards the user of the locker, and the door is not as prone to damage as the cuboid locker.

15 The curved shape of the door used in these lockers result in some disadvantages over conventional lockers. When a curved door is fitted upon a generally cuboid locker, the curved door impinges upon the volume of the locker when the door is opened; this can be seen in the cuboid cubicles having curved doors shown in US 5651219. In a locker, this can
20 result in the contents of the locker falling in the door's path when the locker is closed and jamming the door. Therefore, the shape of the body of the locker can be made to correspond to the curve of the locker, as in WO 8801143, and the bodies of the lockers arranged to attempt to waste as little space as possible, curved lockers being less efficient in that respect than
25 cuboid lockers. US 5135293 attempts to minimise the problem of the contents of the locker barring the door's path by providing a door which is, when considered in cross section, approximately $\frac{3}{4}$ of a complete circle, and supplying shelves upon the door. There is though still a possibility that the lockers contents could fall from the shelves and jam the locker; further,

a large amount of space is wasted between the substantially cylindrical volumes which may be used for storage.

US 4783132 shows a double cylinder shaped cupboard, having two
5 semi-cylindrical doors of similar curvature to the body of the cupboard.
The interior of the cupboard is fully accessible. Both the interior and
exterior are of an irregular shape, necessitating tailored shelving, and
causing difficulty and inefficiency in fitting the cupboard in normal
rectilinear surroundings. Also, the cupboard requires two doors and their
10 mechanisms for a single compartment, resulting in further expense and
maintenance.

The object of the present invention is to provide a locker which is
easy and efficient to manufacture, is spatially efficient, and alleviates other
15 problems of the prior art lockers.

According to the present invention there is provided A group of
lockers, including at least first and second neighbouring lockers, at least the
first locker including a body forming a compartment including
20 compartment walls and an open side, and a door of generally uniform cross
section and of uniform curvature, this curvature lying upon a circle, the
door being supported such that the door may be rotated from a closed
position in which the open side of the compartment is substantially covered
by the door, to an open position in which the open side of the compartment
25 is substantially uncovered, there being a cavity between neighbouring
compartment walls of the first and second lockers respectively, the door's
curve remains lying upon the same circle during rotation, and the cavity
being capable of accommodating the door whilst it is in the open position.

Preferably the cavity, when considered from the front of the lockers, is covered by a covering member. Preferably the covering member includes a recess to accept the one edge of the door of the second locker.

- 5 According to another aspect of the invention, there is provided a locker or the like including compartment walls forming a substantially rectilinear compartment including an opening and a wall directly opposite that opening, and a door of generally uniform cross section and of uniform curvature, this curvature lying upon a circle, the door being rotatable from a
- 10 closed position in which the open side of the compartment is substantially covered by the door and the door lies snug against a compartment wall when the door is in the open position.

- Preferably the door is supported upon pivot means. The pivot means
- 15 may be supplied by one or more generally segmental shapes pivoted about the apex of the segmental shape. Preferably a locking means to secure the door in the closed position acts upon the segmental shape. An extruded handle is provided on the door.

- 20 According to a further aspect of the invention, there is provided a group of lockers as herein defined.

- Preferably there is provided a cavity between the bodies of at least first and second neighbouring lockers capable of accommodating the door
- 25 of the first locker whilst it is in the closed position. Preferably the cavity, when considered from the front of the lockers, is covered by a covering member, which preferably includes a recess to accept the one edge of the door of the second locker.

It will be seen that a cuboid (or other non-cylindrical) volume may be provided behind a curved door, with almost no danger of any contents of the locker falling in the path of the door so as to jam the locker.

- 5 A locker and group of lockers embodying the invention will now be described, by way of example, with reference to the drawings of which;

Figure 1 is a plan view of two lockers,

- 10 Figures 2a and 2b are a side elevation and front elevation respectively of the locker, and

Figure 3 is a plan view of a locker in more detail,

- 15 Figure 4 is a plan view of another embodiment of a locker and portions of neighbouring lockers.

Referring to figures 1, 2a and 2b, each locker 10 comprises a cuboid body of five fixed planar rectangular surfaces which form two side walls 12,13, a back wall 15, a top 17 and a bottom 18, and curved door 20 of uniform cross section and curvature which is supported upon two hinge segments 25,26 which are pivoted about two pivot points on the body of the locker, an upper pivot point 28 on the locker's top, and a lower 29 on the locker's bottom. Referring to figures 2a and 2b, the top of the locker includes two spaced panels 32,33 and the bottom of the locker includes a panel 35 spaced from a plinth 36 which rests upon the ground. Between the spaced panels 32,33, and the panel 35 and plinth 36, the upper and lower hinge segments 25,26 are respectively accommodated.

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The pivot point 28,29 of each hinge segment 25,26 is located at the centre of a circle upon which the door's curve lies. Thus when the door 20 is pivoted about these pivot points, it remains lying upon this circle as it is displaced. The pivot points, hinge segments and door are so arranged upon the body of the locker that the door may be swung between a closed position (as shown in the lower locker in figure 1) where it covers the open side of the locker and an open position where it permits full access to the open side of the locker (as shown in the upper locker in figure 1). The free edges of the side walls 12,13 of the locker (that is, two of the edges bounding the open side of the locker) lie somewhat inside the circle upon which the curve of the door 20 lies, and a chord joining the ends of the curve of the door is somewhat larger than the horizontal width of the open side. The door comes to a stop in its closed position when the side of the excised portion meets a buffer (not shown).

In order to open the door may be swung round about the pivot points, so that one edge of the door (that is, one end of the door's curve when considered in plan) comes to rest just before the side wall of the locker. For full access to the locker, the diameter of curvature of the door must be at least $1/2$ the width of the locker, so that the door is not impeded by the side wall of the locker whilst the other side of the door continues to block the open side of the locker. The diameter of curvature should not be chosen to be any larger than is necessary to allow full access, since the extent to which the door extends to the side of the locker whilst being swung open should also be kept to a minimum.

The hinge segment 25 is a generally segmental shape, having a triangular portion 31 excised from one side. On the opposite side of the hinge segment a keep 33 is incorporated, the keep engaging with a lock 34

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when the door 20 is its closed position. The hinge segment 25, and the weight of the door, are supported by a nylon glider 38 attached to the lower surface of the upper segment 25, and which slides across the lower panel 33 of the two spaced panels which house the hinge segment. The lower hinge
5 segment 26 may be similarly provided with a nylon glider beneath it.

The upper and lower hinge segments 25,26 also ensure that the locker compartment is completely enclosed, and for this reason the excised portion 30 of the hinge segment must not be such that it allows any
10 substantial gap between the front edges of the top and bottom 17,18 of the locker on the one hand and the top and bottom edges of the door 20 on the other. Alternatively, the top and bottom of the locker could be shaped so as to include a curved portion to cover these areas.

The door also includes a handle 38 set upon the door's outer face (that is, its convex side), close to the trailing edge of the door (that is to say it's the edge which trails hindmost along the door's curvature as the door is swung open). The handle is a shaped rib of constant cross section projecting perpendicularly from the door, and is conveniently an extruded
15 plastics material. The handle runs vertically the whole height of the door, so that the door is convenient to open from a large range of heights. The door and handle may be extruded as a single, integral piece.
20

The lock 34 is operated by a proximity sensor upon the column
25 member (which is described below). In use, keys operating such sensors (for example, by infra-red or ultrasound coded signals) may be kept by the users of the lockers (where the users are to have long term use of the lockers) or may be lent on a short term basis to the users on payment of a deposit (for example, at a gymnasium). The proximity sensor is shielded so

as to be protected against vandals or thieves. The lock and key is in any case so configured that damage to the proximity sensor will not result in the lock being disengaged. The location of the lock, at the top of the locker beneath the upper panel of the locker top means that most opportunistic thieves will be dissuaded from attempting unauthorised entry of the locker. The lock may be a mechanical lock, a motor driven bolt, or activated by a solenoid. A smart card could be used as a key, with a corresponding smartcard reader connected to the locker.

As shown in figure 1, a number of these lockers are placed side by side in a row, set somewhat apart so that the each locker's door may be accommodated in the space 21 between that locker and the neighbouring locker. A column member 40 is attached to one side of each locker to enclose the space between the lockers and its neighbour. The column member 40 presents a concave curve between a pair of lockers when one is considered as facing the lockers, and includes a vertical recess 42 to accommodate the trailing edge of the door of its own locker, and a gap 43 between itself and the next locker to permit that lockers door to swing past (these features being shown best in figure 3). The column member is of constant cross section.

The two lockers at the either end of the row are provided with column members of slightly different design, one column member requiring only the retaining groove 42 to accept the edge of the door, and the other column member requiring only the curved surface and gap 43 to cover the space occupied by the door in the open position. This space for the open door may be bounded by further panels, that is, a row end panel lying parallel to the lockers' side walls, and a panel extending in the same plane as the lockers' end panels. Alternatively, the lockers could be placed next

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to one or more walls, the column member for the end locker being attached to the wall.

The column member includes the proximity sensor (not shown) by which the lock may be operated, and also an LED 45 embedded in the concavity of the column member which indicates when the lock is changing its state. The circuitry for the lock and sensor is located in the area bounded by the curved surface of the column member 40, a side wall 12 of one locker, and the curve of the door 20 (when in the closed position) of the neighbouring locker. This space, as well as other unutilised regions, such as the space bounded by the side wall of a locker and the curve of that same lockers door, and the remaining space between two side walls of neighbouring lockers, may be used to house other components, such as ventilation means (as described below), lighting means and the like.

On the side of the locker corresponding to the space where the open door is retained, the locker side has two excised regions 14 towards the front of the locker, these excised areas opening onto the regions between the locker top's spaced panels 32,33 and the locker bottom's plinth 36 and panel 35. These excised regions allow the top and bottom hinge segments 25,26 to swing over to the side of the locker as the door 20 is opened.

Along the back of the row of lockers, rear covering panels are attached to the locker backs, these panels lying in the plane of the lockers' backs, so as to cover the door retaining spaces when viewed facing the lockers' backs. Top covering panels lying in the plane of the lockers' tops similarly cover the door retaining spaces when viewed facing the lockers' tops. The rear covering panels and the panels making up the lockers' back 15 could be replaced by a single, integral panel. Similarly, the top covering

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panels and the upper panels 32 of the top spaced panels could be replaced by a single, integral panel.

5 It will be seen that in contrast to the lock, keep, and hinge of a prior art locker, the pivoting and locking means of the present locker are largely inaccessible, whether the door is opened or closed, thus cutting down the scope of damage which may be performed by vandals. Furthermore, no leverage can be brought to bear upon the door or the pivoting means.

10 The door of the present locker, in opening to one side of the compartment, allows lockers to be positioned in locations in which a locker having a conventionally pivoted door would be unacceptably cumbersome and restrictive.

15 Referring now to figure 4, in a modification of the locker the back of the locker 10' comprises two curved members 50,51 and a grating 53, each of which extend through the full height of the locker. The grating is planar rectangular shape, and lies perpendicular to the locker's side walls. Each curved member 50,51 includes retaining groove 55 which accepts the
20 thickness of the sides walls so that each side wall 12,13 is joined to a curved member. The two curved members are similarly attached using grooves 56 to either side of the grate 53, securing it in place. The curved members thus, when considered in plan, 'round off' the rear corners of the previous embodiment of the locker 10.

25

A single, integral, panel 57 is erected to the rear of the row of lockers, so as to shield both the gratings 53 and the door retaining spaces 21'. The gratings 53 provide the lockers 10' with ventilation so that air in an individual locker does not become stale, as might occur for example

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when the locker is used to store clothes. The ventilation may be enhanced by providing a fan system associated with the row of lockers, the unannotated arrows illustrating such a possible airflow.

5 Figures 2a and 2b also illustrates various components which may be included in the lockers, such as a grated towel shelf 60, a grated bag shelf 62, a glove box 64, and a coat hook 65. Naturally, many diverse elements or accessories could be included in such a locker.

10 Many of the parts of the locker may conveniently be extruded, since the have a uniform cross section. As well as the simple planar rectangular top panels 32,33, bottom panel 35, back 15 and walls 12,13 of the locker 10, the door 20, handle 38, column member 40, and curved back portions 51 of the embodiments shown herein could all be extruded, though
15 naturally, they could be manufactured by other techniques.

 Various materials could be used, most ideally for extrusion purposes including plastic, laminated or otherwise toughened glass, and aluminium.

20 The dimensions of the locker will be dependent upon its intended use. For a locker for use in a gymnasium for example, the locker could be between about 250 mm to 400 mm wide, about 600 mm wide, and about 1.8 meters high. Smaller lockers, for example for person effects and stationary for use in schools and offices, overhead lockers in trains and
25 planes, or for apartment letter boxes, could be of the order of 250 mm cubed. Lockers of this size could be stacked one row on top of another. The lockers could of course be oriented so that the door pivots about a non-horizontal axis.

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The same principle could also be applied to other types of compartment where a door is required with equal benefit, such as domestic cupboards and office filing cabinets, and even changing rooms and other cubicles.

5

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CLAIMS

- 5 1. A group of lockers (10), including at least first and second
neighbouring lockers, at least the first locker including a body forming a
compartment including compartment walls (12, 13, 15) and an open side,
and a door (20) of generally uniform cross section and of uniform
curvature, this curvature lying upon a circle, the door (20) being supported
10 such that the door may be rotated from a closed position in which the open
side of the compartment is substantially covered by the door (20), to an
open position in which the open side of the compartment is substantially
uncovered, there being a cavity (21) between neighbouring compartment
walls of the first and second lockers respectively, the door's curve remains
15 lying upon the same circle during rotation, and the cavity (21) being
capable of accommodating the door (21) whilst it is in the open position.
2. A group of lockers (10) according to claim 1, wherein the cavity
(21), when considered from the front of the lockers, is covered by a
20 covering member (40).
3. A group of lockers (10) according to claim 2, wherein the covering
member (40) includes a recess (42) to accept the one edge of the door (20)
of the second locker.
- 25 4. A locker or the like including compartment walls (12, 13, 15)
forming a substantially rectilinear compartment including an opening and a
wall (15) directly opposite that opening, and a door (20) of generally
uniform cross section and of uniform curvature, this curvature lying upon a

circle, the door (20) being rotatable from a closed position in which the open side of the compartment is substantially covered by the door (20), to an open position in which the open side of the compartment is substantially uncovered, the door's curve remains lying upon the same circle during
5 rotation, such that the wall opposite the opening remains substantially uncovered by the door (20) and the door (20) lies snug against a compartment wall (13) when the door (20) is in the open position.

10 5. A locker or the like according to claim 4, wherein the door (20) is supported upon pivot means (25, 28).

15 6. A locker or the like according to either of claims 4 or 5, wherein the pivot means (25, 28) is supplied by one or more generally segmental shapes (25) pivoted about the apex of the segmental shape (25).

7. A locker or the like according to any of claim wherein there is included a locking means (34) to secure the door (20) in the closed position.

20 8. A locker or the like according to claim 7 wherein the locking means (34) act upon the segmental shape (25).

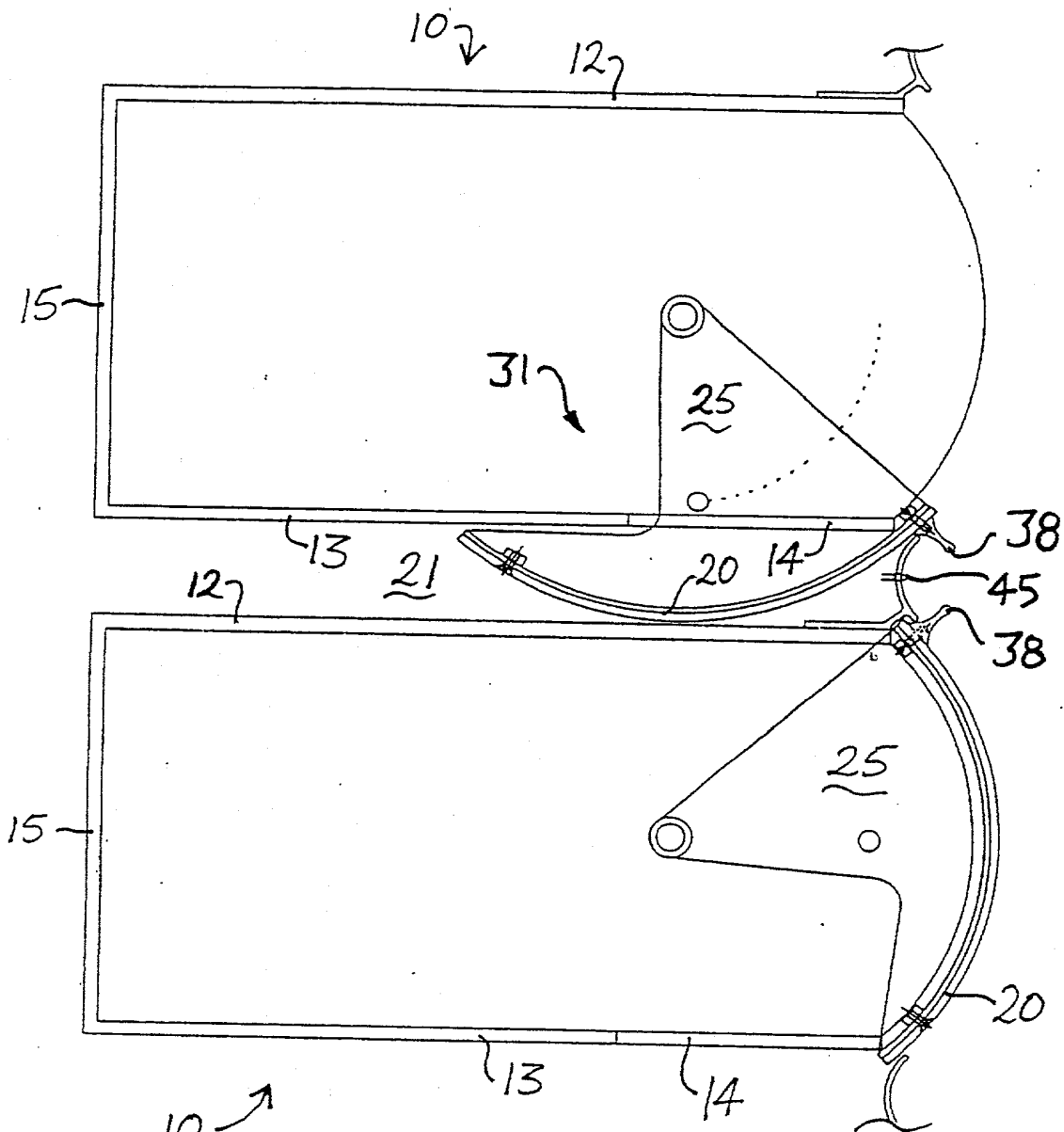
9. A locker or the like according to any of claims 4 to 8 wherein an extruded handle (38) is provided on the door (20).

25 10. A group of lockers (10) according to any of claims 4 to 9.

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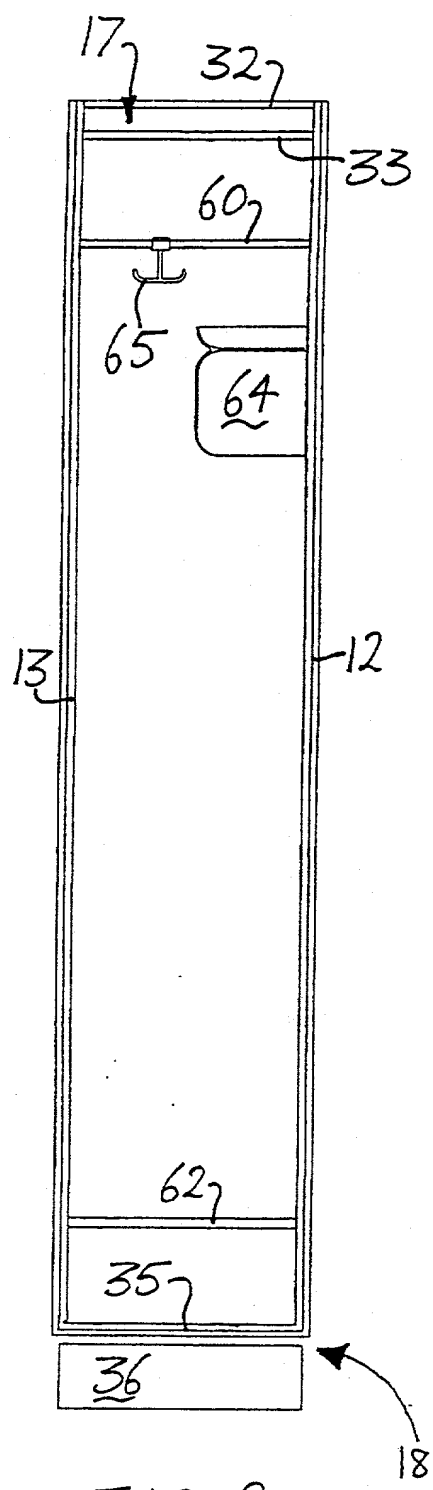


FIG. 2A

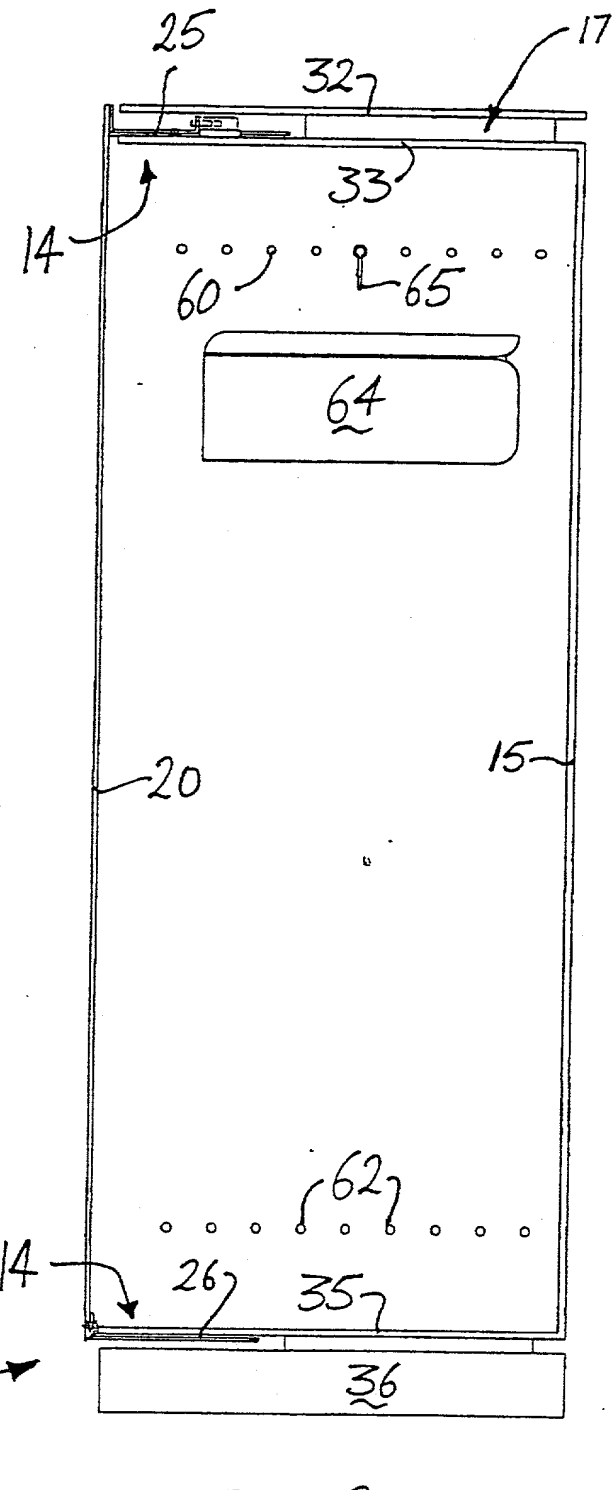
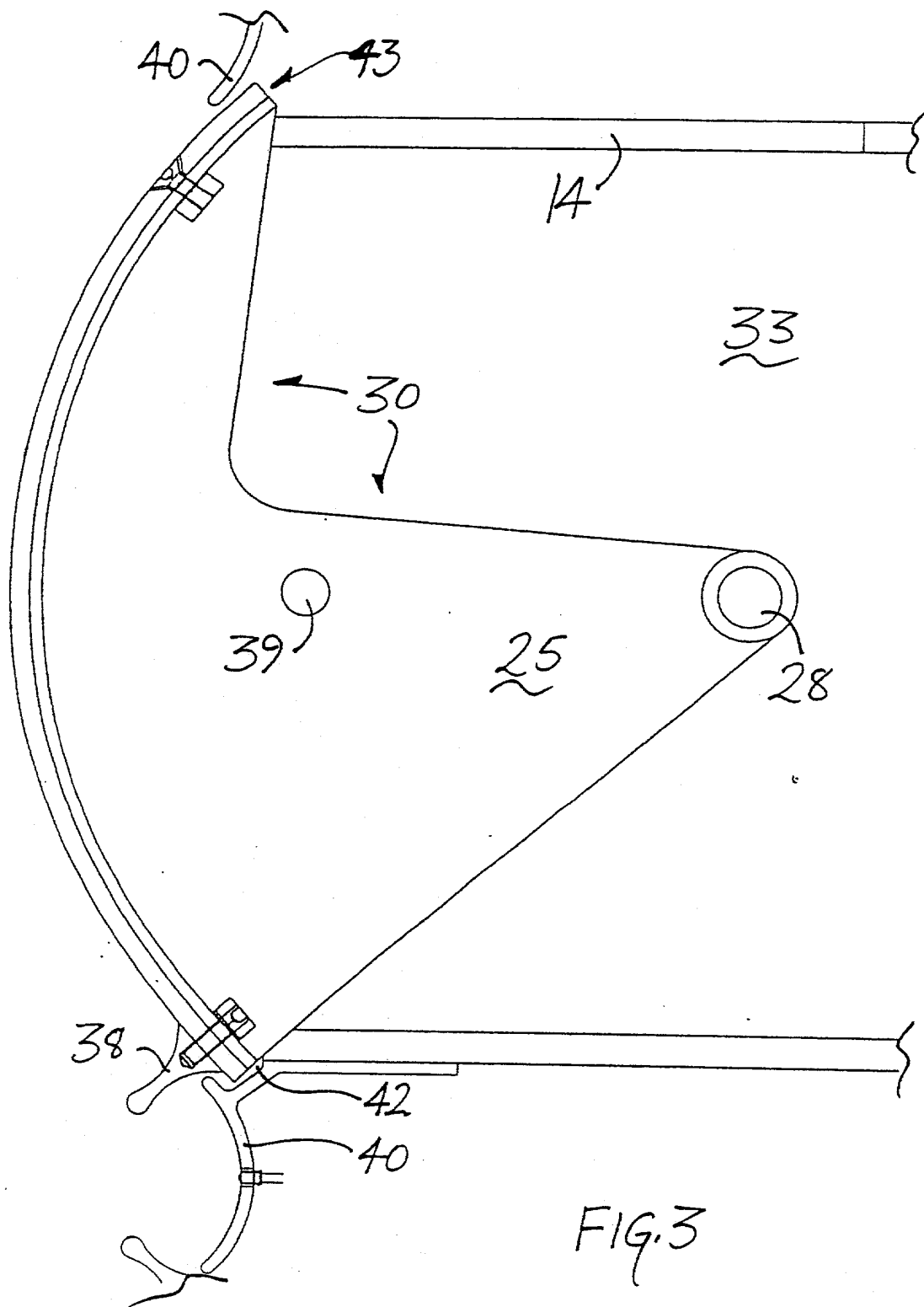


FIG. 2B

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AMENDED SHEET

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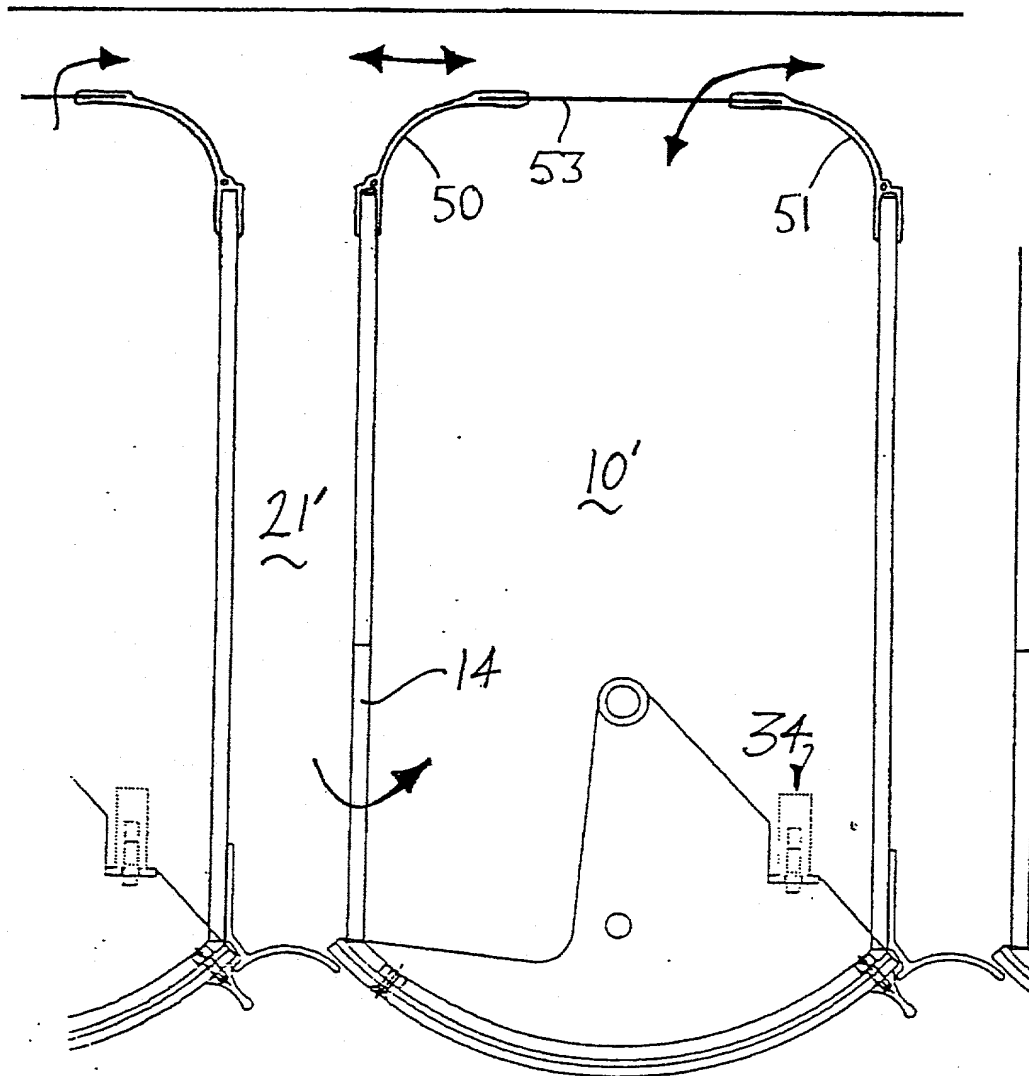


FIG.4

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that: My residence, post-office address, and citizenship are as stated below next to my name,

I believe that I am the original, first, and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled

LOCKERS

the specification of which was filed on 21 August 2000 as PCT application PCT/IB00/01135.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 USC 119 of any foreign applications for patent or inventor's certificate listed below and have also identified below any foreign applications for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Applications

Country	Number	Filing Date	Priority claimed
UK	9920014.9	25 August 1999	Yes

I hereby claim the benefit under 35 USC 120 of the United States Application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States Application(s) in the manner provided by the first paragraph of 35 USC 112, I acknowledge the duty to disclose material information as defined in 37 CFR 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Serial Number	Filing Date	Status
PCT/IB00/01135	21 August 2000	Pending

I hereby appoint as attorneys to prosecute this application and to transact all business connected therewith: Herbert Dubno, Reg. 19,752; Jonathan Myers, Reg. 26,963; Andrew Wilford, Reg. 26,597 and each of them individually.

Address all correspondence to:

The Firm of Karl F. Ross, P.C.
Customer Number 535

5676 Riverdale Avenue, Box 900
Bronx, New York 10471-0900
(718) 884-6600

Direct all telephone calls to:

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 USC 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole inventor:

1-10

Markus HOHL

Inventor's signature

Markus Hohl

Date:

Residence: London, United Kingdom

Post-office Address: 1-3 Leonard Street, London EC2A 4AQ, United Kingdom

Citizen of United Kingdom

GBN